Constructing Knowledge with Silk Road Visuals

Paper presented at the International Assembly of the National Council for the Social Studies
Houston, Texas
November 21, 2008

Beverly Milner (Lee) Bisland, Assistant Professor
Elementary and Early Childhood Education Department
Queens College of the City University of New York
65-30 Kissena Boulevard
Flushing, New York 11367-1597

beverly.bisland@qc.cuny.edu

Visual literacy is multifaceted and our visual sense is a strong component of how we as humans

learn and remember (Flood and Lapp,1997/1998; Vallance, 1999). Many types of visuals can be used to

further learning. They include viewing objects, both natural and man made, and viewing events and settings either with the human eye or with media such as photographs, videos and illustrations (Baca & Braden, 1990). We also communicate information by using visual representations, such as hand drawn pictures, photographs or videos. (Begoray, 2001). Similar to literacy using written and spoken text, visual literacy engages prior knowledge to assist in the understanding of new information:

> Visual literacy itself is defined as the active reconstruction of past experiences with incoming visual information to obtain meaning (Sinatra, 1986, p5)

For students in classrooms, literacy once exclusively meant an ability to read and write. Students today go beyond this basic ability and demonstrate the acquirement and understanding of new knowledge when they interpret and comprehend visual information from television and computer screens (Flood, Heath & Lapp, 1997). Classroom teachers do not always incorporate visual literacy into their classroom practice, however. Often they assume that students know how to view and interpret visual material and do not need to be taught skills necessary to accomplish the task (Begoray, 2001).

Purpose of the Study and Description of the Illustrations

In this study I asked a group of elementary teachers to use illustrations, rather than written text, to introduce their students to the peoples and places of the ancient silk routes. The illustrations are from two picture books; *Marco Polo,* written by Gian Paolo Cesaerani and illustrated by Piero Ventura (1977), and *We're Riding on a Caravan: An Adventure on the Silk Road* (2005), written by Laurie Krebs and illustrated by Helen Cann. The first book describes the journey of Marco Polo from Italy to China in the 13th century. The second is a child's rhyming book describing the journey of a caravan of Chinese merchants from Xi'an, the ancient capital of China, through the trading centers of western China and Central Asia to the ancient market of Kashgar.

Both books have vivid illustrations. I chose a variety of illustrations from each book. They range from drawings with a few structures and figures to complicated compositions with many structures and figures. One of the simpler illustrations in the Cesaerani/Ventura book shows a Mongol yurt with horses and camels beside it and a child playing. A rider with a quiver of arrows is nearby. He is wearing a hat and long robe made from animal skins. The landscape is sparse with only a few leafless trees. The drawing conveys a feeling of emptiness with its lack of trees and the use of a neutral background with the figures and structures drawn in shades of brown and beige.

Other illustrations in the book show cities full of people, objects and activities; Venice, the Armenian city of Laiazzo, Ormuz on the Persian Gulf and the ancient Chinese capital of Xi'an. I asked the teachers to use with their students the illustration of Xi'an, which is also the book's cover illustration. The illustration uses many bright colors and shows a variety of structures including houses, shops, outdoor eating venues, a bridge and one of the magnificent gates in the wall surrounding the city. The illustration is full of hundreds of people engaged in many different activities from carrying and selling goods to eating and conversing. This illustration is so full of figures that it is viewed best on a screen or smart board where the teacher can zoom in on different parts of the illustration for closer study.

In contrast to the Cesaerani/Ventura book, Krebs and Cann use smaller group compositions in their illustrations. They are not teeming with figures as the Cesaerani/Ventura illustration of Xi'an is, for example. The first illustration in the Krebs/Cann book is of the merchant caravan traveling down a road with a verdant green background. The two camels, donkey, cart and three figures are drawn in bold lines with the use of vivid colors including reds, violets, bright greens, deep blues and yellows. To some extent the depiction of Chinese homes and temples, as well as the terrain, has a boldly stylized quality rather than the realistic depictions of the Cesaerani/Ventura book. This style continues in the Krebs/Cann illustrations of the market in Kashgar. In each illustration only fifteen to twenty figures appear so that the viewer is much closer to the groups than in the Cesaerani/Ventura illustrations which are more distanced. The clothing is drawn in detail and shows Chinese, central Asian Muslim and Indian dress. The latter clothes consist of long flowing robes and turbans. The illustration of the desert in western China shows a caravan campsite at dusk. The clothing of the individuals on the caravan remain vivid but the natural background is barren and drawn in neutral tones with the use of some purple and violet.

<div align="center">**Why Use Illustrations of the Ancient Silk Routes?**</div>

Why study and try to visualize the people and places along the ancient silk routes? A child in the United States today lives in a closely interconnected world, wears clothing produced in a country on the other side of the globe and eats food grown on another continent. Understanding how countries on different continents communicated and traded before modern technological innovations is important as a background for understanding our interconnected world of today. Additionally, the topic fits into the social

studies curriculum for elementary school that includes comparative communities and locations in the third grade and ancient civilizations in the sixth grade.

The Silk Road stretched from western China to the Middle East, crossing deserts and mountains. From its beginnings over two thousand years ago, it was never one route but a series of caravan routes used for trade. The resulting interaction between many different people led to a transferal of culture along these trade routes (Leavens, 2004). The result of these interactions was a transformation in religion, art and the use of commodities such as silk. The trade routes extended as far north as Russia and as far south as India, but the main routes crossed central Asia, including western provinces of China such as Xinjiang, the former republics of the Soviet Union such as Uzbekistan, and inner Asia including Mongolia and Inner Mongolia (Amster & Chen, 2004; Wood, 2003). The best known western traveler along these routes and the one most likely to be familiar to elementary students in the United States is the Italian, Marco Polo. In this lesson illustrations of the main route from China through central Asia are used.

Visualization as Another Way of Knowing

The teachers and I adapted a photo analysis worksheet (nara.gov) to assist the students in studying the illustrations (See Appendix A for descriptions of each illustration). The objective of the activity was for students to construct an understanding of the nature of people, objects, places and activities along the ancient silk routes by using visual information from the book illustrations and applying their own prior experiences to what they see in the illustrations.

The Activity:

Initially students were asked to:

Study the illustration

    a) Form an overall impression of the illustration

    b) Examine individual items.

    c) Divide the illustration into quadrants and study each section to see what new details become visible.

1. List people, objects and activities in the illustration

2. Based on your observations in steps 1 & 2, list three things that you might infer from the illustration

3. What questions does this illustration raise in your mind?

4. Where could you find answers to them

The elementary teachers in the study are working in low performing and low socio-economic status schools in New York City. They used the illustrations and worksheet with their students. The students ranged from first to sixth grade. The teachers were part of a graduate social studies methods course and completed the activity as a class assignment.

Findings

My discussion of the illustrations and the reaction of elementary students to them concentrates on two areas from Sinatra's (1986,p.5) definition of visual literacy; what the students observed and their inferences based on prior knowledge that they brought to their observations (See Appendix B).

From *Marco Polo,* written by Gian Paolo Cesaerani and illustrated by Piero Ventura (1977)

Cesaerani/Ventura: Illustrations 1 & 2
(Mongol camps along the Silk Road)

Student Responses: The student who observed and reacted to these illustrations was a fifth grader. He was very straightforward and literal in describing what he saw. His list of people included a child and an adult. The objects listed were animals and the activities were cooking, playing, building, making pottery and starting a fire. When asked to infer from the illustrations he listed what he saw rather than inferring or predicting. He stated that the men were building a tent and that the women were making pottery. His questions included who are these people, where do they come from and why do they use horses and not camels? The last question demonstrates some prior knowledge pertaining to the silk routes since the Bactrian camel is common to the Gobi Desert where many Mongols live.

Teacher Comments: The student was unfamiliar with inquiry using visuals that do not include explanatory text. The student was also unfamiliar with an open ended inquiry that had no right or wrong answers. Consequently the student was anxious about the activity but concentrated intensely on the illustration. The teacher felt that vocabulary such as inference was difficult for the student and would consider simpler vocabulary such as prediction in place of inference.

Cesaerani/Ventura: Illustration 3
(Walled city of Xi'an)

Three teachers used this illustration with their students. One teacher used the complex illustration of Xi'an showing one of its walls and gates with her full sixth grade class. The class was

studying ancient Rome and was due to study China as their next unit. The teacher used a smart board and was able to enlarge and project the picture. She modified the lesson to reflect a concept formation strategy (Parker, 2008). She asked the students first to list everything that they saw, then sort the list into similar groups and then give each group a name or label. The second teacher used only one student to complete the activity. She used the full lesson including inferences and questions with two second graders and two sixth graders. The third teacher used the full activity with one sixth grade student.

Student Responses - Two students in second grade: The students needed guidance from the teacher. They were excited but at first were overwhelmed by the illustration. They brought prior knowledge to the exercise knowing that the picture was of China, but then confused China with Chinatown, which they had actually experienced. They were very observant of the picture, noticing a chaise carrier and a woman that they called an empress being given food.

Teacher Response: As the instructor she needed to simplify some of the vocabulary – from quadrant to smaller squares and thought she needed to extend local knowledge (Chinatown) into global knowledge (China)

Student Responses - Sixth grade- a complete class of thirty five students, two additional students working as a pair and one student working alone. The full class worked in groups with a modified lesson of list, sort and group. Two students worked as a pair and one student worked independently.

In the full class, groups of students organized the components of the illustration into a variety of categories including animals, people, plants, buildings, bodies of water, land and businesses. The students had little prior knowledge of China, but did make some connections. One student wrote that the Great Wall of China was in the picture instead of the wall around the ancient city of Xian.

The observations of the two students working as a pair were at first incorrect, saying that the picture was of a farm, explaining that there was green in the illustration. They noticed the chaise carrier and knew that it was for a high ranking person. In applying prior knowledge they said that the picture was of Chinatown, not China. The student working alone listed many of the people and objects but also noticed activities such as buying and selling and praying. The student inferred that the many people in the illustration came from different social classes. He also inferred that Xi'an was an important city and wanted to know if it needed to be guarded.

Teacher Response: Both the teacher who worked with the complete class and the teacher who worked with the student who completed the activity alone said the students enjoyed the activity. Both teachers felt it would be more useful when students had some prior knowledge of ancient China, possibly as a final activity after a study of China. In contrast the teacher who worked with the two paired students thought the lesson was an excellent beginning activity for a unit of study with any topic. The students can use the questions about the picture to build a K(know) W(want to know) L (learned) chart for the unit.

Krebs & Cann: Market Illustrations 2-5
(Different Market Scenes)

Lower Elementary Grades: Four teachers used the illustrations of market scenes from Krebs and Cann with the lower elementary grades. One teacher worked with a first grade student, another teacher worked with two higher functioning third graders, another worked with three average functioning third graders and the last teacher worked with a mixed level bilingual class, many of whom have limited English language skills. The bilingual teacher used a list, group and label activity in which the students listed what they saw in the illustration, grouped them together and labeled them. She also projected the illustrations onto a smart board for the students.

Student Responses in First Grade – one student: This teacher used the third market scene with a first grade student. She needed to read the activity questions to the student and reword some of the instructions, inferring for example. The child related the picture to his own experience as an immigrant from the Dominican Republic. He inferred that people in the illustration were traveling to find a better place to live. He thought they had no beds or tables because everything was spread out on the ground. He knew that people in the picture were different from him and said that they were Russian, Indian, Chinese and Trinidadian.

Teacher Response: The illustration was very motivating for the student because of the bright colors and because the amount of people, objects and activities were not overwhelming. The teacher thought that the activity needs to be rewritten for a primary child's level of understanding. Keywords, such as market, would help the student relate.

Student Responses - third grade – four students in one class and two students in a second class and a mixed level bilingual class of thirty five students: The first third grade teacher used the second and third market scenes with her students. The students inferred that the people in the second illustration were

poor and sad. They inferred that the same people in the third illustration were happier and better off.

They understood that the illustrations show a market setting, a new vocabulary word that was applied to

the illustration. They wanted to know why the people were in the place depicted in the illustration, what

they were selling and why.

The second third grade teacher did not give much instruction to her higher functioning third

graders. The students were thorough in the listing of people, objects and activities but were very literal in

the description of the people saying for example that they were men or women. They did not infer that

they were Chinese or Muslim. They did infer however that the location of the illustration was India, since

that is the unit they are studying. They thought the illustration was a photograph and they could interview

the people in the illustration.

The students in the bilingual mixed level class grouped the many components of the illustration

into a limited number of categories including people, animals, food and things. Under things were

included such objects as bushels, mats and hay. Often they knew how to describe a component of the

illustration in Spanish, but not in English. Consequently the teacher assisted in the translation from

Spanish to English.

Teacher Response: The first third grade teacher felt the students needed some guidance at the first of the

activity, but then found them to be very observant and thoughtful. She felt that an introduction to the Silk

Road as a trade route would help the students with inferences and conclusions about the illustration.

The second third grade teacher also thought the activity could benefit from some guidance at first

with questions that would provoke thought. Also modeling with a simple picture would help. Similar to

the first third grade teacher she thought that the picture analysis would benefit from prior knowledge

about the Silk Road.

The bilingual students worked individually and the teacher felt that they would benefit from

working in pairs. A discussion of the illustrations before observation would help as well as modeling with

a simpler picture.

Upper Elementary Grades: One fifth grade teacher and one sixth grade teacher used the same group of

market scenes with small groups. The fifth grade teacher used the activity that included inference and

questioning. The sixth grade teacher modified the activity and used the listing, grouping and labeling activity.

Student Responses – three fifth graders working in a group and three sixth graders working in a group:

The fifth graders noticed the dress of the people and noted that they looked Chinese. They identified that they were traveling and that the illustration shows a marketplace. They wanted to know where they are, why they are wearing clothes that do not look like twenty first century clothes and what country they are from. They said that they could find answers to their questions by finding people who looked like the people in the illustration and asking them.

The six graders were able to break down the illustration and observe the different parts of it. New York State has a document based question in the state test on the fifth grade level and consequently students at the upper elementary level are familiar with a variety of documents. The students demonstrated prior knowledge of Chinese customs by observing bowing in one of the illustrations. They demonstrated prior knowledge from a previous lesson on the Silk Road by correctly identifying the people in the illustrations as Chinese and Middle Eastern. They also identified the products in the sacks on the ground as spices.

Teacher Response: The teacher reported that the fifth grade students found the illustrations interesting and that they did well with the activities. The activity would have been more beneficial, however, if it was included in a unit of study on the Silk Road. The sixth grade students were able to produce quality responses because of prior knowledge of documents and how to observe components of documents and a previous lesson on the Silk Road. The teacher suggested a follow up writing assignment in which the students could elaborate on what they observed in the illustrations.

Conclusions drawn from Student and Teacher Responses to the Silk Route Illustrations

Art educators distinguish between *looking at* and *seeing* works of art (Albers, 2008; Berger, 1972). *Looking at* art means that the viewer sees the surface of the illustration, painting or other object of art. The children in this study were often very literal in the way they looked at the book illustrations. Lower grade students and one fifth grader listed exactly what they saw in the illustrations without going deeper to *see* or infer about the figures that were depicted. They said that they saw men, women and children but did not go further to say how they were unique or different from all men, women and children.

In the world of art, when a viewer *sees* the art they relate to the work of art and make meaning using their own ideas and past experiences (Albers, 2008; Berger, 1972; Kress & van Leeuwen, 1996). Examples of *seeing* were more typical of older students in this study rather than the younger students. One first grader, however, immediately identified the figures in the Krebs/Cann market illustrations as travelers and related the illustration to his own experience as an immigrant to the United States from the Dominican Republic. Sinatra's(1986) definition of visual literacy relates well to the art education definition of *seeing* or making meaning rather that only *looking at* a work of art.

It is not surprising that the younger children had more difficulty creating meaning from the illustrations. After all they are younger and therefore their prior experience is more limited in general than older students. However, besides the first grader who identified the figures in the illustration as travelers, second graders identified the ancient capitol of Xi'an as Chinatown. Although the teachers were concerned about this inference, it does show an identification of people and structures that are culturally Chinese. Many Chinatowns in which the overseas Chinese live today have edifices that mimic buildings in an older and less modern China and many such as the Chinatown in lower Manhattan and Montreal, for example, have large ornamental gates that are distinctively Chinese. These gates arch across busy city streets that lead into areas where overseas Chinese have settled. The identification of Chinese structures as well as the characteristics of people of Chinese ethnicity demonstrates an ability to relate to prior knowledge and an attempt by the students to create meaning from the illustration they are viewing.

The older students and in particular those who were completing a unit on China applied considerable prior knowledge to the illustrations. They recognized Chinese customs, the dress of both Chinese and Central Asians (they referred to these figures as Middle Eastern) and the products that were traded along the silk routes. Even the upper grade students who were not completing or were only beginning a unit on China noticed such structures as walls and knew of the Great Wall, noticed social classes based on dress and inferred the importance of a city where many people live and work.

Another element of art education is reflected in the observations of older students in this study. Artists have an intention and manner of representation in their work (Berger, 2000). A viewer's ability to take a critical stance towards artwork and recognize an artist's intention deepens the understanding of a work of art. The older students in this study began to recognize the artist's intention when they noticed

social classes shown through clothing and methods of conveyance in the Cesaerani/Ventura illustration of Xi'an. Also in the Krebs/Cann market scene a group of older students noticed that the clothing was not modern or as they stated "not twenty-first century". Of course this representation could be justified because the illustrations represent seven hundred to a thousand years ago. However, in the Krebs/Cann illustration the people are wearing beautiful clothing in vivid colors and seemingly made of silk. Although they may dress well for market day, to dress in this way on a long and strenuous journey might not be as typical. In her study of illustrations in Caldecott award winning books, Albers (2008) notes that Asians " are schematically dressed in traditional clothing coded through kimonos and sashes . . . The visual codes identify Asian culture clearly and with little variation." (p.187)

Although all the students in this study had some degree of success in creating meaning from the illustrations and therefore establishing content knowledge of the ancient silk routes, using visuals for content knowledge can be enhanced and improved. The exercise in this study can be put into a social studies curriculum context such as the study of communities near and far, now and long ago. The contrast between ancient China and Chinese communities today both in China and outside of China will enhance understanding. In a country study of China illustrations of ancient trade routes can be compared to other trade routes, across Africa for example, and the transfer of culture through trade.

Also as several teachers in the study noted, pivotal questions by the teacher will help to focus the student's attention to elements in the illustration. Many of the students posed questions such as who are these people and where are they going. To actually learn about the silk routes this discussion should continue with further inquiry in written texts. Also to fully understand the trade routes themselves a series of illustrations could be shown. Using the illustrations students can see the changes in terrain and peoples from China into Central Asian and on to Europe. In the Cesaerani/Ventura book the nature of Marco Polo's journey can be seen through the illustrations which stretch from Venice across Armenian to the Persian Gulf into the central Asian deserts to the ancient Chinese capitol of Xi'an. Students can see through the illustrations the different cultures, including the European Renaissance culture of Venice, the Muslim culture of the Persian Gulf, the Mongols of the Asian desert and steppes and the Chinese of Xi'an. By only using the illustrations students can construct meaning about the terrain and cultures of the ancient silk routes. By using illustrations showing all parts of the silk routes, the art serves as a narrative

history and children are better able to imagine the people, places and activities involved than with a single

illustration.

References

Albers, P. (2008). Theorizing visual representation in children's literature. *Journal of Literacy Research*, 40, 163-200.

Amster, M., & Chen, L. (Spring, 2004). Buddhist art styles and cultural exchange along the Silk Road. *Education About Asia, 9*(1), 30-35.

Baca, J.C. and Braden, R.A. (1990). The Delphi study: A proposed method for resolving visual literacy uncertainties. In Braden, R.A., Beauchamp, D.G. and Baca, J.C. (eds). *Perceptions of Visual Literacy.* IVLA Inc.: Arkansas, 99-106.

Begoray, D. L. (2001). Through a class darkly: Visual literacy in the classroom. *Canadian Journal of Education* 26, 2: 201-217.

Berger, J. (1971). *Ways of seeing.* New York: Penguin.

Flood, J., Heath,S.B. & Lapp, D. (1997). Preface. In J.Flood, S.B. Heath, D. Lapp (Eds.), *Handbook of Research on Teaching Literacy Through the Communicative and Visual Arts* (pp. xv-xviii). New York: Simon & Schuster Macmillan.

Kress, G., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design.* London: Routledge.

Leavens, I.B. (Spring, 2004). Transculturation: A pedagogical approach to Asian art. *Education About Asia, 9*(1),47-54.

National Archives and Records Administration Education Staff. Analysis worksheet for photograph. Retrieved November 10, 2008, from http://www.archives.gov/education/lessons/worksheets/photo_analysis_worksheet.pdf

Parker,W.C. (2008).*Social studies in elementary education.* 13th edition. Boston: Pearson: Allyn and Bacon.

Sinatra, R. (1986). *Visual literacy connections to thinking, reading and writing.* Springfield, IL: Charles C. Thomas.

Vallance, E. (1999). Ways of knowing and curricular conceptions: Implications for program planning. In M.J. Early & K.J. Rehage (Eds), Issues in curriculum: Selected chapters from NSSE yearbooks: Ninety-eighth yearbook of the national society for the study of education, part II (pp 51-69).Chicago: University of Chicago Press.

Wood, F. (2003). *The Silk Road.* Berkeley: University of California Press

Children's Books:

Cesaerani, G.P., & Ventura, P (1977). *Marco Polo.* New York: G.P. Putnam's Sons.

Krebs, L., & Cann, H. (2005). *We're riding on a caravan: An adventure on the Silk Road.* Cambridge, MA: Barefoot Books.

Appendix A

Description of the Illustrations used in the Lessons

Book Marco Polo Gian Paolo Cesaerani & Piero	Book We're Riding on a Caravan: An Adventure on the Silk Road

Ventura	**Laurie Krebs & Helen Cann**
Illus	**Illus**
1 Mongol yurt with horses, camels, child playing and rider with quiver of arrows and wearing fur hat and long robe made from animal skins	**1** Small caravan with two Bactrian camels with sacks of goods and riders. Riders have east Asian features and are in Chinese dress. Wheeled cart pulled by a donkey and led by a man in Muslim dress with a long robe and a head covering
2 Two yurts (one under construction) with Mongolian men, women and children engaged in daily chores typical of a nomadic people	**2** Mixture of people in a market setting, some with long robes and head coverings, others in Chinese dress. Sacks of grain and bolts of material for sale are displayed on colorful rugs on the ground
3 The ancient walled Chinese capitol of Xi'an with gate to the walled city and many different people, animals and activities depicted (first of a double page)	**3** Similar scene to second illustration from *We're Riding on a Caravan* with market setting, a variety of products for sale and different central and east Asian people
4 The ancient walled Chinese capitol of Xi'an with a river bridge and many different people, animals and activities depicted (second of double page)	**4** Both turbaned central Asians in long robes and east Asians with horses, goats and sheep in a market setting
	5 Packing up market wares by the same individuals that appear in the first illustration. Animals include a camel and two yaks

Appendix B

Findings from Student Study of the Illustrations

Categories	Cesaerani/Ventura Illustration 1 & 2 5th Grade	Cesaerani/Ventura Illustration 3&4		Krebs/Cann Illustrations 2 to 5			
		2nd Grade	6th Grade	Lower Grades		Upper Grades	
				1st Grade	3rd Grade	5th Grade	6th Grade
Examination and listing of people, objects and activities	Student listed exactly what he saw	Very literal observations. Students said that they saw men and women and did not describe or elaborate	Noticed activities (buying, selling, praying)	Noted that the people in the illustrations were travelers	Thorough but literal listing of people, objects and activities	Noted peoples dress,	Knew how to break a picture down and look at its parts
Inferences from the illustrations	None – repeating the listing of what he saw	Thought that the illustration was of Chinatown	A farm, chaise carrier was for person of high rank, thought illustration was of Chinatown, People are from different social classes, X'ian is an important city	Traveling because they wanted to find a better place to live	Focused on feelings of happiness and sadness of people in the illustration,	People were Chinese, traveling, identified a market place, dress was not modern	Inferred that people were Chinese and Middle Eastern, knew that sacks contained spices, knew the Chinese custom of bowing
Engagement of prior knowledge	Asked why no camels were in the illustration. He knew camels are used in Mongolia	Had prior knowledge of China but confused it with Chinatown	Wall around Xi'an was Great Wall, Chinatown, social class, busy cities full of people are important	His own families experience immigrating to the US	Market Setting, Said that the picture was of India since they had just completed a unit on India. Thought that the illustration was a photograph of real people	Chinese, traveling, markets, dress	Prior knowledge of analyzing documents and previous lesson on the Silk Road